

2. The notion of morpheme

References:

Plag, I. (2003), chapter 2.1., 2.2.

Portero Muñoz, C. (2004), chapter 2 (all sources mentioned here)

Bauer, L., R. Lieber and I. Plag (2013), pp. 13-26.

2.1. Definition(s)

Morpheme is the minimal grammatical unit with form and meaning, the *minimal meaningful* unit of grammatical analysis.

◊Morpheme is a linguistic form that bears *no partial phonetic-semantic resemblance* to any other form.◊ (Bloomfield 1933)

e.g. *dancing*

danc- = *danc-* in *dances*

-ing = *-ing* in *singing*

Dancing has **partial** resemblance with other forms, that is, parts of it are similar to other forms. Therefore, it is NOT a morpheme.

"the *smallest* individually *meaningful* element in the utterances of a language" (Hockett 1958)

e.g. *un-happy* -not◊

However:

- *Pre-fer, in-fer, de-fer, con-fer, trans-fer, re-fer*

No constant meaning

Possible analyses:

two morphs/ morphemes

monomorphemic

1 morph/ morpheme, 1 formative

Consider also:

- Cranberry words:
cran-berry, boysen-berry, huckle-berry
Not used in isolation, no meaning
cf. *strawberry, gooseberry*
Different meaning when used in isolation

- -s (*read-s*): inflectional formants

• The components, or **distributional factors**, of the words are morphemes (Lyons 1968)

taller & *worse*: distributionally equivalent (comparative form) and different (qualify different classes of nouns).

Distribution of a word = product of distribution of component morphemes.

Morphemes are **abstract** units which derive from the linguist's analysis

MORPH

The formal (phonetic or orthographic) **realization** of a morpheme, when these phonetic or orthographic strings are **segmentable**.

A **segment** of a word form which **represents** a particular morpheme (Lyons 1968, Matthews 1974).

e.g. *un-happy* **un**, /ʌn/

Morph	~	Morpheme
Word form	~	Lexeme

Simplest situation: One morph-one morpheme

However:

1. **One morpheme** may have **different** phonological representations (**morphs**).
2. The **same form (morph)** may be used to represent **different morphemes**.
3. The **same form (morph)** may represent **several morphemes at the same time**.
4. The number of **morphemes** present may **exceed** that of **morphs**.
4. The number of **morphs** may **exceed** that of **morphemes**.
5. The **representation** of a morpheme might **not** be a **segmentable** part.

• Problematic (ill-behaved) morphemes

1. ALLOMORPHS
2. HOMOPHONES & SYNCRETISM
3. PORTMANTEAU MORPH
4. ZERO ALTERNANT (ZERO ALLOMORPH/ MORPHEME)
5. EMPTY MORPH
6. FORMATIVE
7. IRREGULAR ALTERNANTS (SUBSTITUTION ALTERNANTS, REPLACIVE ALLOMORPHS, ABLAUT, APOPHONY)
8. SUPPLETION

ALLOMORPH

(Bloomfield, *morphemic alternants*)

• All the possible morphs **belonging to a single morpheme**.

• A **phonetically, lexically or grammatically conditioned** member of a set of morphs representing a particular morpheme. (Bauer 1983).

The alternative representations (by morphs) of a morpheme depending on the different environments.

Phonetically conditioned:

PLURAL MORPHEME

after voiced segments other than sibilants: /z/

after voiceless consonants except sibilants: /s/

after sibilants (/s, z, ʃ, tʃ, ʒ, dʒ/): /ɪz/

PAST TENSE MORPHEME

after voiced segments other than /d/: /d/

e.g. warned

after voiceless segments other than t: /t/

e.g. stopped

after alveolar plosives (/t, d/): /ɪd/

e.g. added

Morphologically conditioned:

(1) Comparative morpheme

tall-er

clever-er / more clever

**intelligent-er / more intelligent*

(2) *sweep*, past /swep-t/ (instead of /swi:p-t/)

take, past /tuk/ (instead of /teik/)

Lexically conditioned:

ox-en (Plural morpheme)

HOMOPHONES & SYNCRETISM

Homophones: The same phonological form (morph) is used to represent different morphemes, but written English uses a **different orthographic form (word-form)** to represent each morpheme.

e.g. /saɪt/ (*sight*, *site*, *cite*)

Syncrétism: the same form is used to represent different morphemes, but this time the word-forms are identical, although they represent **different grammatical words**.

e.g. the past and past participle of regular verbs (*continued-has continued*)

PORTMANTEAU MORPH

(Hockett 1947)

A single morph which represents different morphemes *at the same time*

e.g. -s {present tense} + {Sg} + {3rd person}
was {BE} + {Sg} + {Past}

ZERO ALTERNANT

(Bloomfield, later *zero allomorph/ zero morpheme*)

Morphemes which are present but are **not** given **any phonetic manifestation**.

e.g. *sheep* (plural)
hit (past)
drive (noun, conversion)

EMPTY MORPH

(Hockett)

some phonological material that seems to belong to **no morpheme at all**.

e.g. *r* in *child-r-en*, *-u-* in *sens-u-al* (cf. *person-al*), *n* in *plato-n-ic*

Why call them morphs?: though they have no meaning, they have a function contributing to the construction of words (Bauer and al. 2013: 16).

Alternative analyses:

base allomorphy (*Platon*), suffix allomorphy (*-nic*)

Bauer (1983) proposes the term *formative*ø

FORMATIVE

øa **distributional segment** of a word-form independent of whether it is also a morph.ø
(Bauer 1983)

øan overarching category that includes both morphemes and elements contributing to the construction of words whose semantic unity or function is obscure or dubiousø (Bauer and al. 2013)

(i.e. an element that recurs in the morphological analysis of word-forms, a surplus word-building element)

An alternative term: **extenders** (Bauer and al. 2013: 16)

IRREGULAR ALTERNANTS/ SUBSTITUTION ALTERNANTS/REPLACIVE ALLOMORPHS/ ABLAUT/VOWEL ALTERNATION (APOPHONY)/ CONSONANT ALTERNATION

Morphemes are not realized by affixes but by means of *processes*, an *instruction* to replace one item by another in the phonological make-up of the base.

Vowel alternation in inflection:

e.g. *foot-feet, mouse-mice*
take-took, fall-fell

Vowel alternation in non-causative/ causative pairs

e.g. *lie-lay, rise-raise*

Vowel alternation between verbs and corresponding nouns

e.g. *shoot-shot, sing-song*

SUPPLETION

Allomorphs of one morpheme which are **phonetically unrelated**.

e.g.: *good/well-better/best* (NOT *gooder/*goodest)
bad/badly-worse/worst (NOT *badder/*baddest)
go-went (instead of *goed)
be-am-is-are-was-were
far-further-furthest
little-less-least
much/many-more-most
one-first
two-second

en in *oxen* (Bloomfield)

Alternative analyses:

lexically-conditioned allomorph.

allomorph of a different (though synonymous) morpheme.

It is not always easy to determine where the boundaries of suppletion lie, that is, to decide whether we have lack of morphological relatedness (suppletion) or multiple bases.

Conclusion

- The notion of morpheme is not without problems: there are problematic cases where the number of formal elements and the number of semantic elements does not seem to match neatly.
- Some scholars (e.g. Anderson 1992) argue that the notion of morpheme is inherently flawed. They operate with the word-form as the basic unit, within which they identify morphs, but without the link between morph and morpheme.

Homework: Plag, I. (2003) *Word-formation in English*. Cambridge: UP. Pp. 20-30.

What problematic cases are mentioned which were not mentioned in the explanation of the topic?

2.3. Classification of morphemes

- **Freedom of occurrence**
Bound/ free
- **Function/ effects**
Inflectional/derivational
Class-maintaining/ class-changing
- **Operations they are involved in**
Root/ base/ stem/ affix
- **Position in the word**
Prefix/ infix/ suffix
- **Degree of formal modification on the base**
Replacive morphemes/ superfixes/ zero affixation

Freedom of occurrence **Free vs bound morph (or morpheme)**

- Free morph: a morph which can occur **in isolation**.
e.g. *cat* (lexical morpheme)
the (grammatical morpheme)
- Bound morph: a morph that can only occur in a word form **in conjunction** with at least one other morph.
e.g. *dent-* (root)
-ness (affix, derivational morpheme)
-s (inflectional morpheme)

Function/ effect **Inflectional vs derivational morphemes**

- Inflectional morphemes result in **different word-forms** of the same lexeme.
e.g. *-s* (plural).
- Derivational morphemes result in **new lexemes**. Word-formation domain.
e.g. *un-* (negative prefix).

Class-changing vs class-maintaining morphemes

- Class-maintaining morphemes have the function of indicating a particular **lexico-semantic characteristic**.
e.g. *-ess* (female), *-age* (collective)
Inflectional affixes
Most prefixes (e.g. *micro-*, *pre-*, *un-*)
- Class-changing morphemes have more abstract meaning and may be seen as **markers of syntactic class**.
e.g. *óful: beauty* (noun) → *beautiful* (adjective)

Class-changing prefixes

- en-/em-** Noun/ Adj → V
e.g. *slave-en*slave, *large-en*large, *bitter-em*bitter
- be-** Noun/ Adj → V
e.g. *friend-be*friend, *little-be*little
- a-** Noun → Adj/ Adv
e.g. *ground-a*ground, *blaze-a*blaze
Adj → Adv
e.g. *loud-a*loud
V → Adj
e.g. *sleep-a*sleep

Class-changing/ class-maintaining affixes:

- ly** e.g. *friendly* (CC), *kindly* (CM).

Operation they are involved in

ROOT: that part of a word form that remains when all **inflectional and derivational** suffixes have been removed. It is a lexically contentful morh.

- e.g. *touch* (free)
dent- (in *dental*) (bound)

Bound roots are like free roots in having lexical content but they lack syntactic category

BASE: any form to which affixes of any kind can be added.

- e.g. *un-touchable*_{Base(Complex)}

Compare:

- | | |
|------------------|------|
| <i>touch</i> | Root |
| <i>touchable</i> | Base |

The term base is used because English frequently allows affixation to forms already containing affixes.

A base may consist of:

- A root e.g. *friend-ly*
More than one root e.g. *file cabinet*
A root plus one or more affixes e.g. *friend-li-ness*
Even a phrase e.g. *old maid-ish*

STEM: that part of a word form that remains when all **inflectional** affixes have been removed or to which an inflectional affix can be added (British tradition).

- e.g. *touch*_{Stem-es}
*redskin*_{Stem-s} (complex: 2 roots)
*government*_{Stem-s} (complex: root & derivational affix).

Also used to refer to bound roots.

To avoid confusion, Plag and al. (2013) propose the alternative term **inflectional base \emptyset**

AFFIX: a morpheme which only occurs when attached to some other morpheme or morphemes such as a root or stem or base. Always bound.

Bound morphemes which do not realize unanalysable lexemes (Bauer 1983).

Food for thought: what's the difference between a bound root and an affix?

Case 1: Neoclassical elements

e.g. *ólogy*, *neuro-* Affixes or roots?

- ☐ They recur in the formation of many words (affix?).

However, if we consider them affixes, we have to admit that words like *neurology* are only made up of affixes, which goes against the definition of affix (attached to a root or base).

In addition, other cases can be found in both initial and final position, unlike affixes (e.g. *derm-atitis*, *endo-derm*).

- ☐ They have higher degree of lexical content (root?)

Compare:

neuro- 'pertaining to the nervous system or brain'

re- 'again'

Though the distinction is mainly based on the degree of lexical content (or lexical density), this is not always easy to determine:

e.g. *mini-*, *super-*, *mega-*

These prefixes convey notions of size that are often conveyed by affixes in other languages.

Conclusion: different morphologists might draw the dividing line between bound roots and affixes in a different place.

Case 2: Splinters

Analyse the following words into their component elements:

alcoholic, *workoholic*, *chocoholic*, *Potterholic*

alcohol-ic

work-oholic, *choc-oholic*, *Potter-holic*

Another example:

Watergate, *Monicagate*, *nipplegate*

- ☐ A splinter is a portion of a word that is non-morphemic to begin with (?) but has been split off and used recurrently on new bases, that is, a 'brand-new' affix.

Semantically, they carry some of the semantic content of the original word from which they split (e.g. 'addicted to', 'political scandal'), and therefore are more contentful than typical affixes.

Formally, they can be:

An **affix plus some portion of the original base**:

choco-holic (from chocolate + alcoholic)

hol+ic

booty-licious (bootielicious)õsexually attractive, esp with curvaceous buttocksö
(from booty + (de)licious)

lici+ous

Part of an original compound:

e.g. Monica-gate, nipple-gate (from Water-gate)

The end of a mono-morphemic word:

e.g. cashorama (from panorama, I guess, not found in web)

Case 3:

She drove a *mini*.

That's *super*.

Pros and *cons*

Was it good? Is it?

Affixes used as if they were free. They have undergone RANKSHIFT (Halliday 1966)

Position in the word

Prefix, suffix, infix

Prefixes: attached before a base. Derivational in English. Typically, class-maintaining.

Suffixes: attached after a base. Derivational & inflectional. Typically, class-changing.

Infixes: attached inside a base.

Infixes

(1) **Insertion of words** (not affixes): insertion of expletives (e.g. *-bloody-*, *-bloomin(g)-*, *-fuckin(g)-*) into words in expressive language:

e.g. *abso-blooming-lutely*, *in-fucking-possible*.

(2) **Plural of some compounds** (especially those having a particle or postmodifier as second member):

e.g. *Passers-by*, *mothers-in-law*

(3) **Linking elements** which appear between the two elements of a compound.

e.g. the *-o-* in neoclassical compounds like *electrolyte*.

Recursiveness: multiple affixation

Root (bound) *dict-*

Base *dict*_V 1 Prefixation *contra-dict*_V

Base *contradict*_V 2 Suffixation *contradict-ory*_A

Base *contradictory*_A 3 Suffixation(2) *contradictori-ness*_N

Sequence of affixes relative to each other: Class I vs Class II affixes

The suffix *-ion* follows *-ate*: e.g. *depriv-at-ion*, *popul-at-ion*, *deport-at-ion*.

The suffix *-ism* follows *-ic* and *-arian*: e.g. *athlet-ic-ism*, *attitudin-arian-ism*, *humanit-arian-ism*.

The suffix *-ness* follows *-less* and *-ful*: e.g. *home-less-ness*, *power-less-ness*, *care-ful-ness*, *cheer-ful-ness*.

The suffix *ise/ -ize* follows *-al*: e.g. *industri-al-ise*, *neutr-al-ise*, *nation-al-ise*, *verb-al-ise*, *sentiment-al-ise*.

cf. *She often came here/ She came here often/ Often she came here*.

Links between different affixes: e.g. *care-less-ness* (cf. **care-less-ity*).

Number of affixes: it does not usually exceed two. Rare: *de-nation-al-iz-ation-ist-ic*.

Degree of formal change to the base Replacive morphemes

- (1) Final replacive morphemes: **word final consonantal differences** between otherwise identical words, correlating with the differences between grammatical classes.

Noun & verb

belief-believe, *mouth(/θ/)-mouth(/ð/)*

advice-advise (final fricative)

intent-intend (final plosive)

Adjective & verb

safe-save, *loath-loathe*

Singular & plural

wife-wives (/f/-/v/)

path-paths (/θ/-/ð/)

house-houses (/s/-/z/)

- (2) Medial replacive morphemes: **vowel alternations** resulting in different grammatical categories or subcategories

Noun-verb *seat-sit*

Adj-verb *full-fill*, *hot-heat*

Adj-noun *proud-pride*

Non-causative/causative verbs *fall-fell*, *lie-lay*

Present-Past *sing-sang*

Sometimes, both final and medial replacive morphemes are combined:

e.g. *glass-glaze*, *grass-graze*, *bath-bathe*, *choice-choose*, *breath-breathe*.

Superfixes (‘suprasegmental morphemes’)

Stress shift:

noun (stress on 1st syllable)-verb (stress on 2nd syllable).

Typically, two-syllable words of Romance origin.

e.g. *discount-disˌcount*, *import-imˈport*, *increase-inˈcrease*, *insult-inˈsult*, *torment-torˈment*, *transfer-transˈfer*, *transport-transˈport*.

Stress shift and vowel alternations: vowels are reduced to /ə/ or /ɪ/ in unstressed syllables.

Examples:

	N/ Adj	V
<i>absent</i>	/æbsənt/	/əbˈsɛnt/
<i>combine</i>	/kəmˈbaɪn/	/kəmˈbaɪn/
<i>conduct</i>	/kənˈdʌkt/	/kənˈdʌkt/
<i>contrast</i>	/kənˈtrɑːst/	/kənˈtrɑːst/
<i>export</i>	/eksˈpɔːt/	/ɪksˈpɔːt/
<i>perfect</i>	/pɜːfɪkt/	/pəˈfɛkt/
<i>produce</i>	/prəˈdjuːs/	/prəˈdjuːs/
<i>progress</i>	/prəˈɡres/	/prəˈɡres/
<i>rebel</i>	/rɛbl/	/rɪˈbɛl/
<i>record</i>	/rɛkɔːd/	/rɪˈkɔːd/
<i>survey</i>	/sɜːveɪ/	/səˈveɪ/

Zero affixation

The lowest possible degree of formal modification on the base. No formal difference.

Inflection: zero plural e.g. *sheep*

past tense of some irregular vbs e.g. *hit*

Derivation: conversion e.g. *cheat*

comment, *exile*, *process*, *advance*, *concern*, *display*,
preserve, *respect* (nouns or verbs).